THE HIGH LEVEL BRIDGE ON THE TYNE, at Newcastle, on the York and Berwick line of railway, will, it is expected, be opened with great ceremonial on 1st August. The key of the last arch was driven home on Thursday week, by the Mayor of Gateshead, Mr. Hawks, of Hawks, Crawshay, and Co., the contractors for the ironwork. His worship stripped for the occasion, and in a business-like manner, as became a captain of industry, with a rosewood handled brass-headed hammer, struck the last few blows that united this great work from end to end. The first pile, according to the *Gateshead Observer*, was driven on 24th April, 1846, in presence of its designer, Mr. R. Stephenson, M.P.; and the first segment of the first arch was placed so lately as 10th July last. The iron work rising to a height of 120 feet above the bed of the river, much caution was called for, and from the careful and expensive arrangements therefore made, there has been neither loss of life nor limb in the fixing of the six massive arches, many of the castings of which weighed from 10 to 12 tons each. The cost of the bridge when completed is estimated to be 243,096*l.*; the viaduct through Gateshead and Newcastle, 113,057*l.*; land, compensation, &c., 135,000*l.*; total 491,153*l.* Large as this sum is, however, it is only half the amount that rumour assigned as the cost of the bridge alone.

A TREAD-WHEELED COACH.—We have already had schemes for the complete inversion of the railway system, with wheels on the sideway and rails on the train,—so that no one need now be surprised to hear of an inversion of the old jog-trot highway system, with the horses *riding* in the coach, and the passengers hanging on by the wheel. Such is literally the fact alleged to have been recently realized in Ohio, U. S., where a single broad wooden wheel or roller, 14 feet in diameter, and 6 feet in breadth, has been fitted up with tread-boards for the horses within, and an axle whence seats are suspended for 24 passengers. Iron stays stretch from each axle upwards, and meet above in a seat for the driver, who, it would appear, can turn about and wheel about as quick as Jim Crow, or at least much quicker than a coach and six. We should prefer seeing it running straight on up-hill, however. Two heavy draught horses, it is said, can easily bowl along two dozen passengers (on a level, we presume), at the rate of one dozen miles per hour, and win easy too, their work on the tread-mill being mere amusement.

MURAL PAINTINGS AT ST. CROSS.—Coloured drawings of these paintings, recently discovered on the walls of the Church of St. Cross, were exhibited by Mr. Francis Baigent, at a recent meeting of the Archæological Association. Some are exceedingly elegant in design, and apparently of the early part of the fifteenth century. Mr. Baigent was stopt in his efforts to obtain complete sketches, as the Earl of Guildford ordered the walls to be immediately re-whitewashed, as already mentioned.

ROYAL COLLEGE OF CHEMISTRY.—It seems but yesterday since we had the plan and elevation of this new college in THE BUILDER, as a novelty not yet realized, and now we have before us a goodly volume of the "Researches conducted in the Laboratories,"* with an able 'Introduction' and 'Remarks,' by Professor Hofmann, their presiding genius. The institution is now in a flourishing state, free of debt, and already nearly independent. The lecture theatre, however, of the original design (cost 1,800*l.*) is much wanted, together with some further temporary assistance, which we hope will not be denied to so thriving and hopeful a germ of future scientific greatness. We are pleased to observe amongst the items of chemical advancement within the last year or two, enumerated in Professor Hofmann's introduction, one in the reception and establishment of which THE BUILDER may justly claim some little credit, namely—"the happy substitution of the stable and innocuous oxide of zinc, as a pigment, for white lead, which is so easily injured, and so frequently gives rise to serious diseases."

* "Reports of the Royal College of Chemistry, and Researches conducted in its Laboratories, in the years 1845-6-7: London, 1849."

THE IRON TRADE.—On the only few occasions on which we have felt inclined to put the slightest trust in quarterly meetings, namely, on a recent show of onerous motive in the raising of wages along with prices, our partial confidence has very speedily proved to be misplaced. The present state of the trade is thus announced by the *Birmingham Gazette*,—one of the stanchest upholders of the masters' interests:—"The depression in every branch of this trade still continues, nor has the declared reduction of 20s. in price been followed by the slightest revival of demand. On the contrary, it seems to have had a prejudicial effect; and, combined with *the astounding disclosures that sales of manufactured iron had been previously made from 20s. to 30s. below the nominal rates*, and that good mine pigs were in the market under 3*l.* per ton, has done much to impair general confidence, and to prostrate any expectation of an early revival of business. The workmen, as was expected, have quietly acceded to the proposed reduction in their wages."

THE BUCKINGHAM ESTATES IN IRELAND.—A renewed attempt was lately made to sell these estates by auction. They are situated in Westmeath, and consist of 4,270 acres of land, with 121 labourers' and other houses, mills, &c., producing in all a rental of 2,300*l.* a-year. The whole was divided into four lots, for the first of which—653 acres of 'very excellent' land, with fourteen houses, rental in all 430*l.* a-year, —6,100*l.* had been previously offered and refused. The only offers now made were 4,500*l.* and 5,000*l.*, by one bidder—also refused. For the next two lots,—one of 1,279 acres 'of a very superior quality,' with 23 houses, and a corn-mill, rental 579*l.* a-year, upset price 7,000*l.*; and the other of 1,001 acres, 'average quality,' with thirty-nine houses, rental 526*l.*—upset price 4,000*l.*—there were no bidders. Lot No. 4 contained 1,338 acres, a moiety of 'the most superior quality,' with forty-five houses, and a 'well-paid rental' of 766*l.* 17*s.* a-year. For this lot 11,000*l.* were previously offered and refused. The previous bidder, Mr. Gibbings, now offered 9,000*l.* for this lot, but it also was bought in, as were all a second and third time without further offer. The sale was then adjourned *sine die*.

EXEMPTION OF LITERARY AND SCIENTIFIC SOCIETIES FROM LOCAL RATES, &c.—A meeting on this subject, consisting of delegates from a large number of these societies, was held at the City of London Literary and Scientific Institution, on Wednesday, the 6th instant; Mr. W. Brown, M.P., in the chair. The report of a committee appointed at a former meeting was read, setting forth the difficulties and injustice which attend the administration of the present Act; and stating, that a measure had been prepared, which, providing for the annual issue of a certificate of exemption, founded on an annual return, and simplifying the legal procedure in cases of litigation, would, it was believed, secure to these institutions the immunity intended to be conferred by the 6 and 7 Vict., c. 36. It appeared, that influential deputations had waited on Sir George Grey and Lord John Russell, and that the Government had promised to give immediate attention to the subject. The meeting was addressed by Lord Wriothesly, Mr. Wyld, M.P., Mr. Lacey, M.P., Mr. Birkbeck, Mr. Toulmin Smith, and other gentlemen; and it was determined to take active means to secure an efficient Bill.

DARTMOUTH PARK.—Lord Dartmouth, under the directions of his agents, Messrs. Pearce and Thynne, has laid out a large area of land at the Forest Hill station of the Croydon and Epsom Railway (close to Sydenham), as a park, with the view of inducing the erection of villas, and builders have already commenced operations. Several thousands of trees and evergreens have been planted, and a site has been appropriated for a church, much needed in the neighbourhood. The beauty of the locality, its reputed healthiness, and close proximity to London, are strong claims in favour of this new "settlement."

BRACKNELL CHURCH COMPETITION.—Fifty-one designs were sent in, from which three were at first chosen. Ultimately the committee decided upon one by Messrs. Coe and Goodwin.

COMPETITION.—Plans and specifications are wanted for the widening and improvement of Bristol bridge; premium 25*l.*, as advertised.

ARTIFICIAL MAHOGANY.—The following method of giving any species of wood of a close grain the appearance of mahogany in texture, density, and polish, is said to be practised in France with success. The surface is plained smooth, and the wood is then rubbed with a solution of nitrous acid; 1 oz. of dragon's blood is dissolved in nearly a pint of spirits of wine; this, and one-third of an ounce of carbonate of soda, are then to be mixed together, and filtered, and the liquid in this thin state is to be laid on with a soft brush. This process is to be repeated, and in a short interval afterwards the wood possesses the external appearance of mahogany. When the polish diminishes in brilliancy, it may be restored by the use of a little cold-drawn linseed oil.

INCISED INSCRIPTIONS.—Mr. J. Williams, an ingenious stone carver, of Ipswich, has submitted to us some specimens of a mode of inscribing stone which seems entitled to encouragement. The letters are incised and filled in with a composition (either black, or coloured for the capitals, as the case may be), and the whole face may then be either varnished or not. He has put up several Tables of Commandments in this way, and says he can execute them as cheaply as a competent painter could write them. The mode would seem to be applicable to other matters.

THE VALLEY AND CITY OF KASHMIR.—The view of the Valley of Kashmir, painted by Mr. Burford, and now exhibiting at his establishment in Leicester-square, is a very successful and interesting work, the merit of which, as of other paintings by Mr. Burford, is not sufficiently appreciated by the public although they visit them. The rapidity with which, assisted by Mr. Selous, he produces what are in reality well-finished oil paintings, full of nature, is quite marvellous.

THE OLD MARKET-HOUSE, BERKHEMPSTEAD.—A correspondent is anxious to draw attention to the old market-house at Berkhempstead, in order, if possible, to induce its repair, before it finally falls to the ground. It is one of those quaint timber erections of the Tudor age which are so picturesque, and which we do not desire to lose. A few well-timed repairs to the roof and posts which carry the building, and form a covered-way, may supersede the necessity of erecting a new one, and at present it accords well with the Grammar School.

LABOURERS' COTTAGES PRIZE ESSAY.—We understand that the Council of the Royal Agricultural Society of England have awarded the society's prize of 50*l.* "For the best Essay on the Construction of Labourers' Cottages" to Mr. Henry Goddard, architect, of Lincoln.

AN ARCHITECTURAL SOCIETY AT CHESTER has been formed, combining archæology and history. The Marquis of Westminster, lord lieutenant of Cheshire, the bishop of the diocese, and other influential persons have joined it.

TENDERS

For building Chapel and Schools in the Bethnal-green-road, for the Rev. J. Viney and others. Quantities furnished; Mr. Tarring, Architect.

Little and Son	£7,440
Ward	6,173
Holland	6,070
Curtis	5,983
Higgs and Son	5,896
Ashby	5,733
Wood	5,696
Grimsdell	5,612
Haynes and Co	5,537
Myers (accepted)	5,499

For House in Red Lion-street, Whitechapel, for Mrs. White; Mr. F. R. Beeston, Architect.

Wilkinson	£1,453
Rider	1,384
Saunders and Woolcott	1,348
Grimsdell	1,289
Wilson	1,275
Rivers	1,195
W. Hill	1,093

For Messrs. Charrington, for Clerk's Dwelling, Principal's Dwelling, Boundary Walls, Drains, &c.; Mr. A. R. Mason, Architect.

Trego	£3,545
Pritchett	3,471
Wilson	3,271
Jay	3,072
Ashby	3,062
Holland	2,999
Locke and Nesham	2,933
Lawrence	2,907
Piper	2,889
Grimsdell	2,879
Curtis	2,596
W. Hill (accepted)	2,498

[Sad work. Comments seem useless.]

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